



## INDIANA DEPARTMENT OF TRANSPORTATION

### STANDARDS COMMITTEE MEETING MINUTES

#### *Driving Indiana's Economic Growth*

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April 19, 2006

#### MEMORANDUM

TO: Standards Committee

FROM: Dannie L. Smith, Secretary

RE: Minutes for the April 12, 2006 Standards Committee Meeting

The Standards Committee meeting was called to order by the acting Chairman at 9:02 a.m. on April 12, 2006 in the N730 Conference Room. The meeting was adjourned at 11:43 a.m.

The following members or their representatives were in attendance:

Mark Miller, Acting Chairman	Robert Cales, Estimating
Jim Keefer, Ft. Wayne Dist.	Dennis Kuchler, State Constr. Engr.
Larry Rust, Traffic Control	Richard VanCleave, CO Production

Also in attendance were the following:

Dave Andrews, Pvmt. Engineering	Deb Hood, INDOT - BITS
Yadu Shah, Production	Dan Smith, Secretary
Tony Uremovich, Production	Lee Gallivan, FHWA
Eric Carleton, I.C.P.C.	

#### New Business

Item 11-1	Mr. Kuchler	4/12/06	4
203.08.1	Linear Grading	200-23	
203.27(c)	Measurement on a Linear Basis	200-39	
203.28	Basis of Payment	200-41	
Action:	Passed as revised		
Item 11-2	Mr. Cales	4/12/06	6
305.03	New PCC Base	300-8	
Action:	Withdrawn		
Item 11-3	Mr. Miller	4/12/06	7
305.05	Widening With PCC Base	300-10	
Action:	Withdrawn		

Item 11-4	Mr. Kuchler	4/12/06	8
503.07	PCCP Stitching	500-32	
503.07(a)	Transverse	500-32	
503.07(b)	Longitudinal	500-32	
<del>503.07</del> 503.08	Method of Measurement		
<del>503.08</del> 503.09	Basis of Payment		
Action:	Withdrawn		
Item 11-5	Mr. Kuchler	4/12/06	10
Standard Drawing	503-CCPS-01		
Action:	Withdrawn		
Item 11-6	Mr. Miller	4/12/06	11
506.03	Concrete Mix Design	500-38	
Action:	Withdrawn		
Item 11-7	Mr. Wright	4/12/06	12
Design Policy	DM Section 49-5.01(4)		
Action:	Withdrawn		
Item 11-8	Mr. Wright	4/12/06	13
Standard Drawings	601-WBGA-01		
	601-WBGC-03A		
Action:	Withdrawn		
Item 11-9	Mr. Miller	4/12/06	14
605.04(c)	Proportioning and Placing	600-21	
Action:	Withdrawn		
Item 11-10	Mr. Miller	4/12/06	15
610.02	Materials	600-32	
Action:	Withdrawn		
Item 11-11	Mr. Kuchler	4/12/06	16
621.09	Laying Sod	600-68	
Action:	Passed as submitted		
Item 11-12	Mr. Miller	4/12/06	17
715.12	Pavement Replacement	700-112	
Action:	Withdrawn		
Item 11-13	Mr. Wright	4/12/06	18
724.02(b)	Expansion Joint M	700-150	
Action:	Passed as submitted		
Item 11-14	Mr. Miller	4/12/06	20
801.11	Temporary Crossovers	800-11	
Action:	Withdrawn		
Item 11-15	Mr. Kuchler	4/12/06	21
805.03	General Requirements	800-36	
805.15	Method of Measurement	800-44	
805.16	Basis of Payment	800-45	
Action:	Passed as revised		
Item 11-16	Mr. Miller	4/12/06	23
805.08	Controller Cabinet, Signal		
	Service, and Detector Housing	800-40	
	Installation		
Action:	Withdrawn		

Item 11-17	Mr. Wright	4/12/06	24
906.07(c)	Type M	900-42	
Action:	Passed as revised		
Item 11-18	Mr. Wright	4/12/06	25
601.02	Materials	600-1	
601.13	Method of Measurement	600-5	
601.14	Basis of Payment	600-6	
Action:	Withdrawn		

cc:	Committee Members (7)	ACPA Representative (1)
	Districts (28)	Contech Representative (1)
	FHWA (3)	IKO Representative (1)
	ICI Representative (1)	Bridgetek Representative (1)
	IMAA Representative (1)	INDOT Toll Road (3)
	APAI Representative (1)	Traffic Design (3)
	ACEC Representative (1)	Estimators (3)
	ADS Representative (1)	Specification Writers (4)
	Mirich Representative	

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 203, AFTER LINE 157, INSERT AS FOLLOWS:

**203.08.1 Linear Grading**

*Linear grading shall consist of:*

- (a) earth wedging at the outside edge of a shoulder once the pavement has been resurfaced, widened, or replaced.*
- (b) earth wedging behind guardrail to obtain the required earth backup for the posts.*
- (c) median earth filling required for paving and placement of concrete median barrier.*

*These types of earthwork will not require benching.*

SECTION 203, BEGIN LINE 945, DELETE AND INSERT AS FOLLOWS:

**(c) Measurement on a Linear Basis**

~~When either or both the plans and contract provides for a pay item for linear grading, the measurement for payment will be based on the length of roadway actually constructed to the lines, grades, and typical cross sections specified. All classes of excavation involved, including required borrow, will not be measured for payment, but will be considered as included in the pay item for linear grading per mile (kilometer).~~ *Linear grading will be measured by the linear foot (meter). Measurement will be made once along each survey centerline for all linear grading completed on the line. Deductions will be made for bridges. Classes of excavation, except for required borrow, involved in linear grading will not be measured.*

SECTION 203, BEGIN LINE 1040, INSERT AS FOLLOWS:

Items. *Linear grading will be paid for at the contract unit price per linear foot (meter).*

SECTION 203, LINE 1147, DELETE AND INSERT AS FOLLOWS:

Linear Grading .....STA LFT (m)

SECTION 203, AFTER LINE 1193, INSERT AS FOLLOWS:

*The cost of all classes of excavation, except required borrow, within the limits of linear grading shall be included in the cost of linear grading.*

REVISION TO 2006 STANDARD SPECIFICATIONS  
SECTION 203 CONTINUED.

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Other sections containing specific cross references:	General Instructions to Field Employees Update Required? No
None	Frequency Manual Update Required? No
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
203-R-260	None
Motion: Mr. Kuchler Second: Mr. Cales Ayes: 5 Nays: 0	Action: Passed as revised Effective - January 1, 2007 Letting September 2007 Supplementals
	Received FHWA Approval? Yes

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 305, BEGIN LINE 19, INSERT AS FOLLOWS:

**305.03 New PCC Base**

Construction of new PCC bases shall be in accordance with 502, except for 502.03, 502.14 and 502.20. The surface shall be finished with wet burlap or by wood floats. Smoothness of the base will be controlled with a 16 ft (4.9 m) long straightedge longitudinally and a 10 ft (3 m) long straightedge transversely.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision
None	Frequency Manual Update Required? Y___ N___ By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr.	Action: Withdrawn. May resubmit.
Second: Mr.	
Ayes:	
Nays:	

Item No. 11-3  
Mr. Miller  
Date: 4/12/06

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 305, BEGIN LINE 119, INSERT AS FOLLOWS:

Materials and construction requirements shall be in accordance with the applicable requirements of 502, except *502.03 and* the following.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision
None	Frequency Manual Update Required? Y___ N___ By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Withdrawn. May resubmit.

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 503, AFTER LINE 216, INSERT AS FOLLOWS:

**503.07 PCCP Stitching**

*This work shall consist of drilling holes in PCCP across cracks prior to installing epoxy coated reinforcing steel tie bars with a chemical anchor system to provide load transfer and tie the cement concrete pavement together.*

*The type, size, and length of the tie bars shall be as shown on the plans. The location, angle, size, and depth of the holes shall be as shown on the plans. The tie bars shall be placed so there is an equal length of bar embedded in the adjacent slabs without protruding through the bottom of the slab. The minimum depth of cover from the pavement surface to the tie bar shall be 2 in. (50 mm). Tie bars shall be installed on the day the holes are drilled.*

*The drills used for making the holes shall be hydraulic percussive type and shall be mounted on a rigid frame to provide proper position and alignment. The Contractor shall exercise care in drilling holes for the placement of the tie bars. Damage to any pavement shall be repaired as directed by the Engineer.*

*Prior to injecting the chemical anchor system the drilled holes shall be blown clean with compressed air using a device that will reach to the bottom of the hole to ensure that all debris or loose material has been removed.*

*The chemical anchor system shall be in accordance with 901.05 and installed in accordance with the manufacturer's recommendations. Immediately after installation of the bar, the top of the hole shall be filled with chemical anchor system material or excess anchor system trimmed to leave the chemical anchor system level with the existing pavement.*

**(a) Transverse**

*Random cracks shall be corrected by stitching. The stitching shall extend along the entire length of the crack in the PCCP.*

**(b) Longitudinal**

*Random cracks shall be corrected by stitching. The stitching shall extend along the entire crack in the PCCP. The spacing of the stitches shall be adjusted so that a stitch shall not be located within 9 in. (225 mm) of a D-1 contraction joint.*

SECTION 503, BEGIN LINE 217, DELETE AND INSERT AS FOLLOWS:

**~~503.07~~ 503.08 Method of Measurement**

SECTION 503, AFTER LINE 222, INSERT AS FOLLOWS:

*PCCP stitching will be measured by the number of bars installed.*

SECTION 503, BEGIN LINE 223, DELETE AND INSERT AS FOLLOWS:

**~~503.08~~ 503.09 Basis of Payment**

SECTION 503, AFTER LINE 229, INSERT AS FOLLOWS:

*PCCP stitching will be paid for at the contract unit price per each, complete in place.*



REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 503 CONTINUED:

SECTION 503, AFTER LINE 233, INSERT AS FOLLOWS:

*PCCP Stitching ..... EACH*

SECTION 503, AFTER LINE 250, INSERT AS FOLLOWS:

*The cost of drilled holes, epoxy coated reinforcing steel, chemical anchor system, and all necessary incidentals shall be included in the cost of PCCP stitching.*

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision
None	Frequency Manual Update Required? Y___ N___ By - Addition or Revision

Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
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None	See Item 11-5
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Motion: Mr.	Action: Withdrawn. May resubmit.
Second: Mr.	
Ayes:	
Nays:	

Item No. 11-5  
Mr. Kuchler  
Date: 4/12/06

REVISION TO 2006 STANDARD DRAWING  
503-CCPS-01

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Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision
None	Frequency Manual Update Required? Y___ N___ By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	See Above
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Withdrawn. May resubmit.

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 506, AFTER LINE 50, INSERT AS FOLLOWS:

*A concrete mix design and a trial batch will not be required where the quantity for partial depth patching is less than 10 yd<sup>3</sup> (8 m<sup>3</sup>) per contract.*

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision
None	Frequency Manual Update Required? Y___ N___ By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Withdrawn. Will resubmit.

Item No. 11-7  
Mr. Wright  
Date: 4/12/06

REVISION TO DESIGN MANUAL

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SECTION 49-5.01(04):

Revises the length of certain guardrail posts and the embedment length of these same guardrail posts.

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Other sections containing  
specific cross references:

None

General Instructions to Field Employees

Update Required? Y\_\_\_ N\_\_\_

By - Addition or Revision

Frequency Manual

Update Required? Y\_\_\_ N\_\_\_

By - Addition or Revision

Recurring Special Provisions  
potentially affected:

None

Standard Sheets potentially affected:

See Item 11-8

Motion: Mr.

Second: Mr.

Ayes:

Nays:

Action: Withdrawn. Will not resubmit.

Item No. 11-8  
Mr. Wright  
Date: 4/12/06

REVISION TO 2006 STANDARD DRAWINGS

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601 WBGA-01 W-Beam Guardrail Assemblies  
601-WBGC-03A W-Beam Guardrail Components

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Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision
None	Frequency Manual Update Required? Y___ N___ By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	See Above
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Withdrawn. Will not resubmit.

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 605, BEGIN LINE 61, DELETE AND INSERT AS FOLLOWS:

**(c) Proportioning and Placing**

Concrete shall be proportioned, mixed, and placed in accordance with 502, *except 502.03 will not apply*. Where integral curb and gutter is specified, that portion of the curb below the upper surface elevation of the adjoining pavement shall be constructed by extending the pavement to the outer vertical plane of the curb at the time the pavement is placed. The concrete used in this extension shall be the same composition as that of the pavement.

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Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision Frequency Manual Update Required? Y___ N___ By - Addition or Revision
None	
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Withdrawn. Will resubmit.

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 610, AFTER LINE 20, INSERT AS FOLLOWS:

*A concrete mix design in accordance with 502.03 will not be required.*

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision
None	Frequency Manual Update Required? Y___ N___ By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr.	Action: Withdrawn. Will resubmit.
Second: Mr.	
Ayes:	
Nays:	

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 621, BEGIN LINE 343, DELETE AS FOLLOWS:

**621.09 Laying Sod**

Sod strips shall be laid ~~carefully by hand~~ in the designated direction. The sod shall

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Other sections containing specific cross references:	General Instructions to Field Employees Update Required? No
None	Frequency Manual Update Required? No
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Kuchler Second: Mr. Keefer Ayes: 5 Nays: 0	Action: Passed as submitted Effective - June 2006 Letting September 2007 Supplementals
	Received FHWA Approval? Yes



Item No. 11-12  
Mr. Miller  
Date: 4/12/06

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 715, BEGIN LINE 362, INSERT AS FOLLOWS:

The pavement replacement areas in Portland Cement Concrete pavements shall be filled with PCCP in accordance with 502, *except 502.03 will not apply.*

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision
None	Frequency Manual Update Required? Y___ N___ By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Withdrawn. Will resubmit.

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 724, BEGIN LINE 33, DELETE AND INSERT AS FOLLOWS:

**(b) Expansion Joint M**

This joint shall consist of prefabricated, multiple elastomeric seals, separator beams, and support bars. The structural design of expansion joint M shall be in accordance with the current AASHTO Standard Specifications for Highway Bridges and shall be for the same design loading as the bridge structure at which it is installed, but in no case less than HS 20 – 44 truck loading and impact. The joint shall be designed to accommodate the movement shown on the plans. ~~The sliding cover plate required over that portion of expansion joint M located in a sidewalk or concrete rail shall be the same material as the extrusion and shall be galvanized in accordance with ASTM A 123.~~

*The manufacturer of the joint assembly shall prepare shop drawings showing details of the assembly. Three sets of the shop drawings, manufacturer's specifications and joint setting data shall be submitted for approval. This information shall be approved prior to manufacture of the joint.*

*The joint shall be constructed in accordance with the details shown on the shop drawings as prepared by the manufacturer of the expansion joint assembly.*

*The modular expansion joint assembly shall be preset by the manufacturer in accordance with the approved shop drawings, joint setting data and specifications. The assembly shall be properly secured for shipping and contain provision for final field adjustment at the time of installation. Final adjustment of the assembly shall be made at the direction of the Engineer. All movements due to factors such as shrinkage, creep and mid-slab deflection shall be properly accounted for prior to this final adjustment.*

*The joint, including anchor assembly, shall be shop fabricated, delivered and installed as a continuous unit for lengths up to 44 ft (13 m). Joints longer than 44 ft (13 m) shall be furnished in continuous units or in appropriate shorter sections as shown on the shop drawings and approved by the Engineer. Joints used in stage construction shall be furnished in sections appropriate to accommodate the work. All joints furnished in sections shall be spliced with welds, with ends prepared for welding in the shop. All welds, both shop and field, shall be in accordance with 711.32.*

*All welds in contact with the elastomeric seals shall be ground smooth. Metal surfaces in direct contact with the elastomeric seal shall be clean and properly treated in accordance with the manufacturer's recommendations to provide a high strength bond between elastomeric seal and mating metal surfaces. The elastomeric seals shall be clean and free of foreign materials. All exposed structural steel surfaces, except stainless steel or teflon coated, shall be painted in accordance with 619.*

*The method of installation of the joint, including all items incidental to the installation, shall be in accordance with the recommendations of the manufacturer. In all cases, excess sealant shall be removed before it has set. The Contractor shall submit for approval the manufacturer's recommendations for the installation of the joint. This information shall be approved before installation begins.*

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 724 CONTINUED.

*The profile of the joint in the roadway area shall conform to the roadway cross section. Where changes in direction are required, such as at curbs or concrete rails, the sections shall be cut to the bevel required to produce the same cross section on each piece being joined. Slider plates shall be provided at curbs, walkways and concrete rails as part of the completed joint assembly.*

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? No
None	Frequency Manual Update Required? No
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
724-B-046	None
Motion: Mr. VanCleave Second: Mr. Cales Ayes: 5 Nays: 0	Action: Passed as submitted Effective - September 2007 Letting
	Received FHWA Approval? Yes

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 801 BEGIN LINE 500, INSERT AS FOLLOWS:

Temporary crossovers shall be either type A or type B as shown on the plans and shall be constructed in accordance with the applicable sections of 207, 402 or 502. *The requirements of 502.03 will not apply.* When required to maintain median drainage, a 15 in. (375 mm) diameter pipe shall be placed at the centerline of the median under the crossover. If the crossover is to remain in place for future construction, the pipe shall have appropriate grated box ends in accordance with 715.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision Frequency Manual Update Required? Y___ N___ By - Addition or Revision
None	
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Withdrawn. Will resubmit.

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 805, BEGIN LINE 58, DELETE AND INSERT AS FOLLOWS:

When directed, temporary stop signs shall be erected at the intersection. When no work is in progress, the intersection shall have at least two operating signal faces for each approach. When the new installations are completed, ~~any~~ *all* existing signal equipment and materials including wood poles, steel poles, and cast-iron handhole rings and covers which have not been used in the new installation shall be carefully removed. Regardless of the right to materials found on the project, as set out in other sections of these specifications, ~~these~~ *items designated in the contract documents, and field identified by the Department, as traffic signal equipment to be salvaged by the Department or local unit of government* shall be stored at a secure site ~~and salvaged by the appropriate governmental agency~~ *until such time as it is transported to the District Office, when designated as a pay item, or salvaged by the Department or local unit of government. The Contractor shall verify that the field identification placed by the Department has not been removed by vandalism or natural causes. If the Contractor has reason to believe field identifications have been removed, it shall contact the Department. The Contractor shall be responsible for* ~~any~~ *all* damage or loss of this equipment and shall repair or replace the ~~same with no additional payment~~ *damaged or lost equipment as directed. All signal equipment removed and not designated to be salvaged shall become the property of the Contractor and shall be disposed of in accordance with 202.*

SECTION 805, AFTER LINE 455, INSERT AS FOLLOWS:

*Traffic signal equipment removal and transportation of salvageable signal equipment will not be measured.*

SECTION 805, AFTER LINE 471, INSERT AS FOLLOWS:

*The removal of existing traffic signal equipment designated to be removed will be paid for at the contract lump sum price for traffic signal equipment, remove. When designated as a pay item, the transportation of salvageable signal equipment will be paid for at the contract lump sum price for transportation of salvageable signal equipment.*

SECTION 805, AFTER LINE 518, INSERT AS FOLLOWS:

*Traffic Signal Equipment, Remove..... LS*

SECTION 805, AFTER LINE 524, INSERT AS FOLLOWS:

*Transportation of Salvageable Signal Equipment ..... LS*

SECTION 805, AFTER LINE 595, INSERT AS FOLLOWS:

*The cost to repair or replace damaged or lost salvageable traffic signal equipment shall be at the Contractor's expense.*

REVISION TO 2006 STANDARD SPECIFICATIONS  
SECTION 805 CONTINUED.

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Other sections containing specific cross references:	General Instructions to Field Employees Update Required? No
<u>805.03</u> 104.05 Pg 100-28	Frequency Manual Update Required? No
<u>805.15</u> None	<u>805.16</u> None
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
805-T-084	None
Motion: Mr. Kuchler Second: Mr. Cales Ayes: 5 Nays: 0	Action: Passed as revised Effective - June Letting September 2007 Supplementals

Received FHWA Approval? Yes

REVISION TO 2006 STANDARD SPECIFICATIONS

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SECTION 805, BEGIN LINE 252, INSERT AS FOLLOWS:

A minimum of 12 in. (300 mm) and a maximum of 18 in. (450 mm) of loop wire duct will be permitted in the detector housing for each loop lead. Concrete used in the installation of detector housings shall be in accordance with 506, except where a portion of the road is closed or where there is no vehicular traffic, then class A concrete in accordance with 702 may be used. *The requirements of 506.03 and 506.05 will not apply.* The concrete shall be placed flush with existing surface and shall be covered with a steel plate during the setting time.

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Other sections containing specific cross references:	General Instructions to Field Employees Update Required? Y___ N___ By - Addition or Revision
None	Frequency Manual Update Required? Y___ N___ By - Addition or Revision
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
None	None
Motion: Mr. Second: Mr. Ayes: Nays:	Action: Withdrawn. Will resubmit.

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 906, BEGIN LINE 201, DELETE AND INSERT AS FOLLOWS:

**(c) Type M**

Structural steel shall be in accordance with ASTM A 36 (A 36M), A 570 (A 570M), A 242 (A 242M), A 588 (A 588M), or Merchant Quality 1010, 1020 *in accordance with ASTM A 576*.

Sealant and grout shall be in accordance with ~~Federal Specification TT-S-00230~~  
~~or as recommended by the joint manufacturer's recommendation.~~

Elastomer shall be neoprene in accordance with ASTM D 3542.

The structural steel and sealant shall be covered by a type C certification and the elastomer by a type B certification, both in accordance with 916.

Bearings above and below the support bar shall be a nylon or urethane compound with polytetrafluorethylene riding surfaces. All components of the system shall be accessible to periodic inspection and component replacement if necessary.

The elastomer seals shall be in accordance with the requirements as follows:

1. *be held in place by compressive forces throughout the normal limits of joint movement,*
- 4.2 be supplied and installed in one piece;
23. have corner locked edges for a watertight fit;
34. not be any part of the load bearing riding surface;
45. be installed using seal lubricant-adhesive or be mechanically clamped in position to produce a watertight seal;
56. have a shape which promotes self removal of foreign material during normal joint operation;
67. be recessed 1/2 in. (13 mm) below the riding surface throughout the normal limits of joint movement;
78. be held in position by the separator beams;
89. have a hollow box shape for joints utilizing urethane equilibrium control spacers or a strip seal configuration for joints using a mechanical linkage to maintain equidistant separator beam spacing.  
*The joint shall have a maximum opening of 3 in. (75 mm) per seal.*

The separator beams shall be in accordance with the requirements as follows:

1. provide the riding surface across the joint;
2. have an extruded or machined shape suitable to hold the seals;
3. be stable against tipping, tilting, or lifting during application of traffic loads by use of a suitable shape and connection to the support bar;
4. be supported individually on their own independent support bars;
5. maintain equidistant spacing through use of suitable urethane equilibrium type control spacers *which work counter force to the compression forces of the seals* or through a positive horizontal mechanical linkage or proportioning bar.



REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 906 CONTINUED.

The support bars shall be in accordance with the requirements as follows:

1. incorporate stainless sliding surfaces to minimize resistance to joint movements;
2. be supported above, below, and laterally as required to prevent lifting, to transmit bearing loads, and to maintain positioning of the bar.

All support bar boxes and joint housings shall have top, bottom, and sides made of steel plate with 1/2 in. (13 mm) minimum thickness. Anchorages shall consist of looped No. 5 reinforcing bars welded to 1/2 in. (13 mm) steel plates spaced at 9 in. (230 mm) centers. No unwelded steel to steel contact will be permitted.

*The sliding cover plate required over that portion of expansion joint M located in a sidewalk or concrete rail shall be the same material as the extrusion and shall be galvanized in accordance with ASTM A 123.*

**NOTE**

Some research indicates that Merchant Quality Steel, grade 1010 and 1020 are covered by ASTM A 575 and 576. 576 references 575. We should retain this reference or we may cause the joints to be out of spec.

Other sections containing specific cross references:	General Instructions to Field Employees Update Required? No
724.02 Pg 700-150	Frequency Manual Update Required? No
Recurring Special Provisions potentially affected:	Standard Sheets potentially affected:
724-B-046	None
Motion: Mr. VanCleave Second: Mr. Cales Ayes: 5 Nays: 0	Action: Passed as revised Effective - September 2007 Supplementals

Received FHWA Approval? Yes

REVISION TO 2006 STANDARD SPECIFICATIONS

SECTION 601, BEGIN LINE 49, INSERT AS FOLLOWS:

The components, assembly, post spacing, post lengths, and installation for each location shall be as shown on the plans. Double-facing of the guardrail will be required at the locations shown on the plans. In locations where conditions will not allow the use of 7 ft (2130 mm) posts, 6 ft (1830 mm) posts may be substituted when approved. *The use of 8 ft (2430 mm) posts shall be as indicated on the plans.*

SECTION 601, BEGIN LINE 238, INSERT AS FOLLOWS:

**601.13 Method of Measurement**

Guardrail, guardrail with rub rail, shop curved guardrail, adjusting guardrail height, guardrail removal, and resetting guardrail will be measured by the linear foot (meter) along the top of the rail element, complete in place, *regardless of the length of post.* Nested guardrail will be

SECTION 601, BEGIN LINE 314, DELETE AND INSERT AS FOLLOWS:

The substitution of 6 ft (1830 mm) posts for 7 ft (2130 mm) posts where conditions will not allow the use of the longer post *and the use of 8 ft (2430 mm) post as shown on the plans* will be ~~at the same~~ *with no change in the contract unit price of the longer post.*

Other sections containing  
specific cross references:

801.17, Pg 800-17  
801.18, Pg 800-19

General Instructions to Field Employees

Update Required? Y\_\_\_ N\_\_\_

By - Additional or Revision

Frequency Manual

Update Required? Y\_\_\_ N\_\_\_

By - Addition or Revision

Recurring Special Provisions  
potentially affected:

None

Standard Sheets potentially affected:

See Item 11-8

Motion: Mr.

Second: Mr.

Ayes:

Nays:

Action: Withdrawn. Will not resubmit.